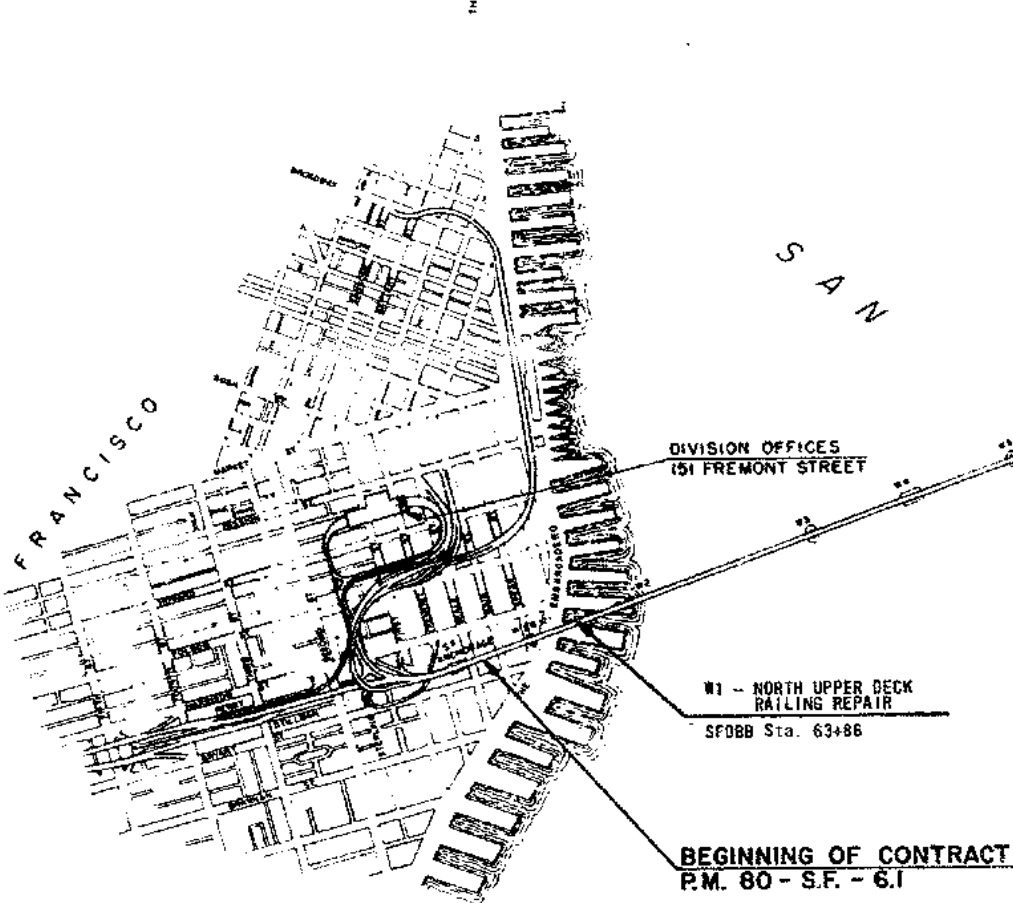
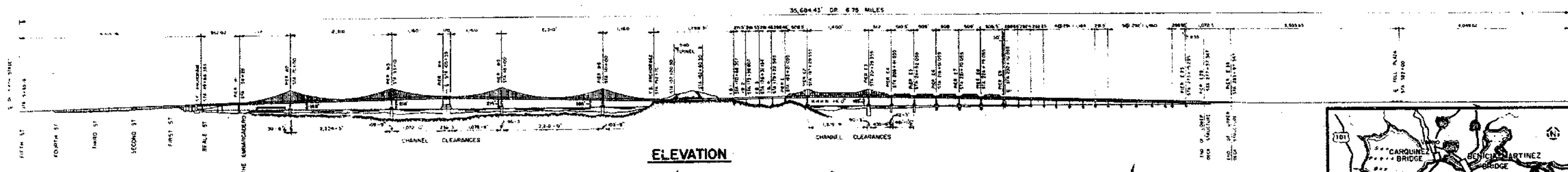


Truss and Railing Repair Spans W1, E10 & E18 (Contract No. 04-04139)

The as-built drawings, which are contained in these CDs, are scanned from drawings of the existing structure for the convenience of the contractor and as a means to convey to the contractor the available information regarding the existing structure. It is to be understood that no claim is being made as to the accuracy or completeness of the said information and that the State of California or its officers or agents shall not be responsible for the manner in which the contractor interprets and uses this information or for the accuracy, currency or completeness of these scanned as-built drawings. The contractor shall be responsible to obtain, at the contractor's expense, any additional information that the contractor deems necessary for completely and accurately assessing the existing conditions of the structure. The contractor shall not be entitled to any compensation for any claim arising from inaccuracy or insufficiency of these as-built drawings or in anyway related to these drawings.

- [1. Project Plan and Elevation](#)
- [2. Span E18-Truss Details](#)
- [3. Span E18-Temporary Truss Supports](#)
- [4. Span E18-Curb and Railing Details](#)
- [5. Span E18-Electrical Details I](#)
- [6. Span E18-Electrical Details II](#)
- [7. Span W1-Railing Repair](#)
- [8. Span E10-Railing Repair I](#)
- [9. Span E10-Railing Repair II](#)
- [10. Span E10-Railing Repair III](#)
- [11. Span E10-Electrical Details](#)



ELEVATION

YERBA BUENA ISLAND

PLAN

INDEX TO PLANS

| SHEET NUMBER | TITLE |
|--------------|---|
| 1. | PROJECT PLAN AND ELEVATION |
| 2. | SPAN E18 - TRUSS DETAILS |
| 3. | SPAN E18 - TEMPORARY TRUSS SUPPORTS |
| 4. | SPAN E18 - CURB AND RAILING DETAILS |
| 5. | SPAN E18 - ELECTRICAL DETAILS I (Includes Mechanical Details) |
| 6. | SPAN E18 - ELECTRICAL DETAILS II |
| 7. | SPAN W1 - RAILING REPAIR |
| 8. | SPAN E10 - RAILING REPAIR I |
| 9. | SPAN E10 - RAILING REPAIR II |
| 10. | SPAN E10 - RAILING REPAIR III |
| 11. | SPAN E10 - ELECTRICAL DETAILS (Includes Mechanical Details) |

GENERAL NOTES

- When north curb lane is open to traffic, the Contractor shall provide a temporary barrier at each work location until completion of repairs. Temporary barrier shall provide protection for the full length of each area to be repaired.
- Dimensions shown for lengths of damage areas to be repaired are taken from construction drawings. The Contractor shall field verify and adjust all dimensions to fit existing conditions since minor variations are to be anticipated. (Refer to Article 2.3 of the SPECIAL PROVISIONS).
- Contract plans show existing conditions and new materials to be used. New materials are designated by the words "new" or "install".
- Connections shall be made with high strength (H.S.) bolts, and shall include H.S. bolt, nut or nuts and washer. Beveled washers shall be furnished for connections to members with tapered flanges.

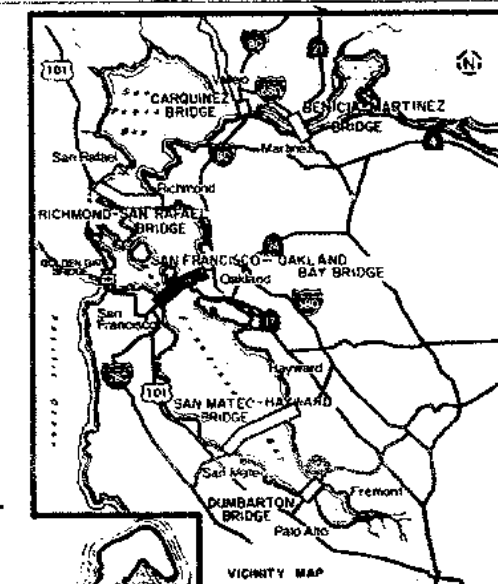
E18 - NORTH TRUSS REPAIR
SF088 Sta. 259+00

END OF CONTRACT
P.M. 80 - ALA. - I.O

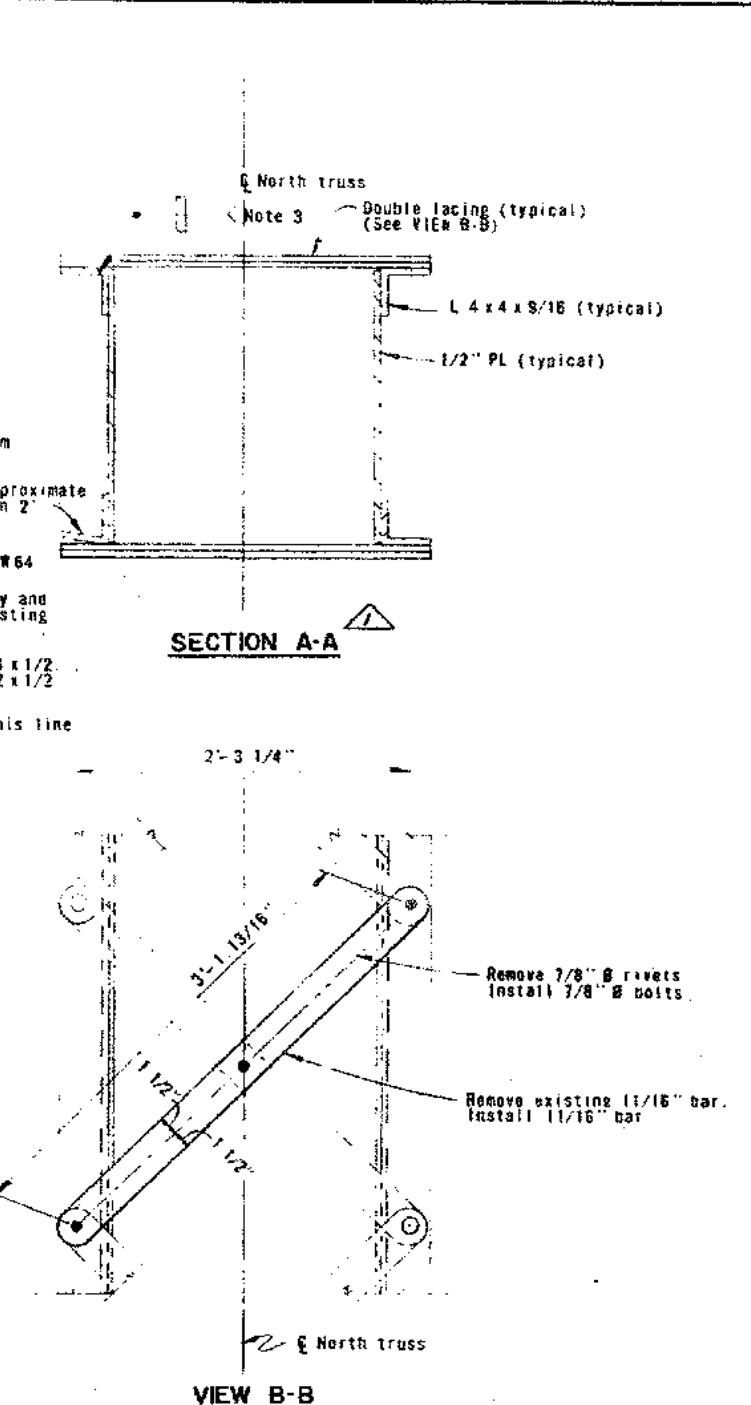
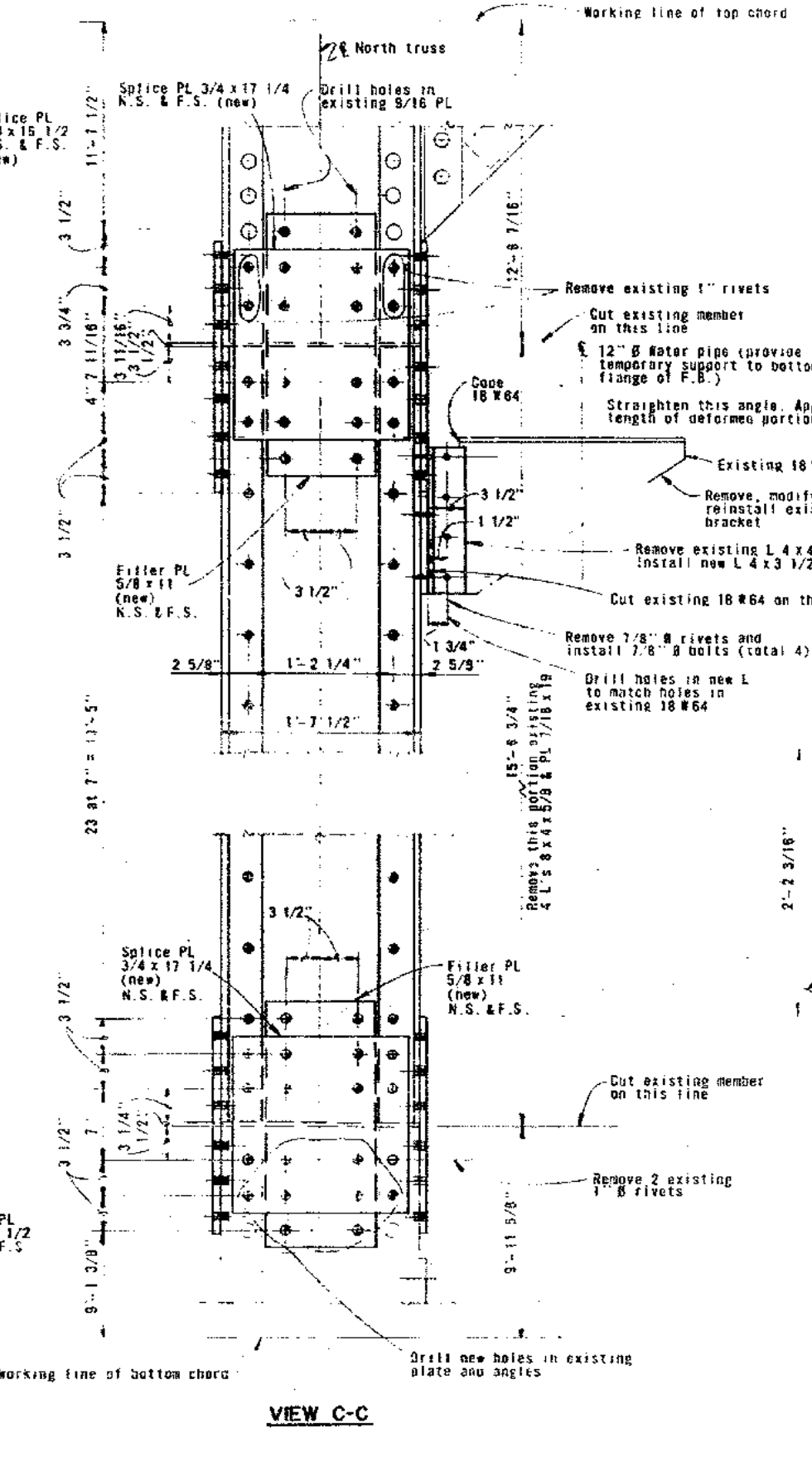
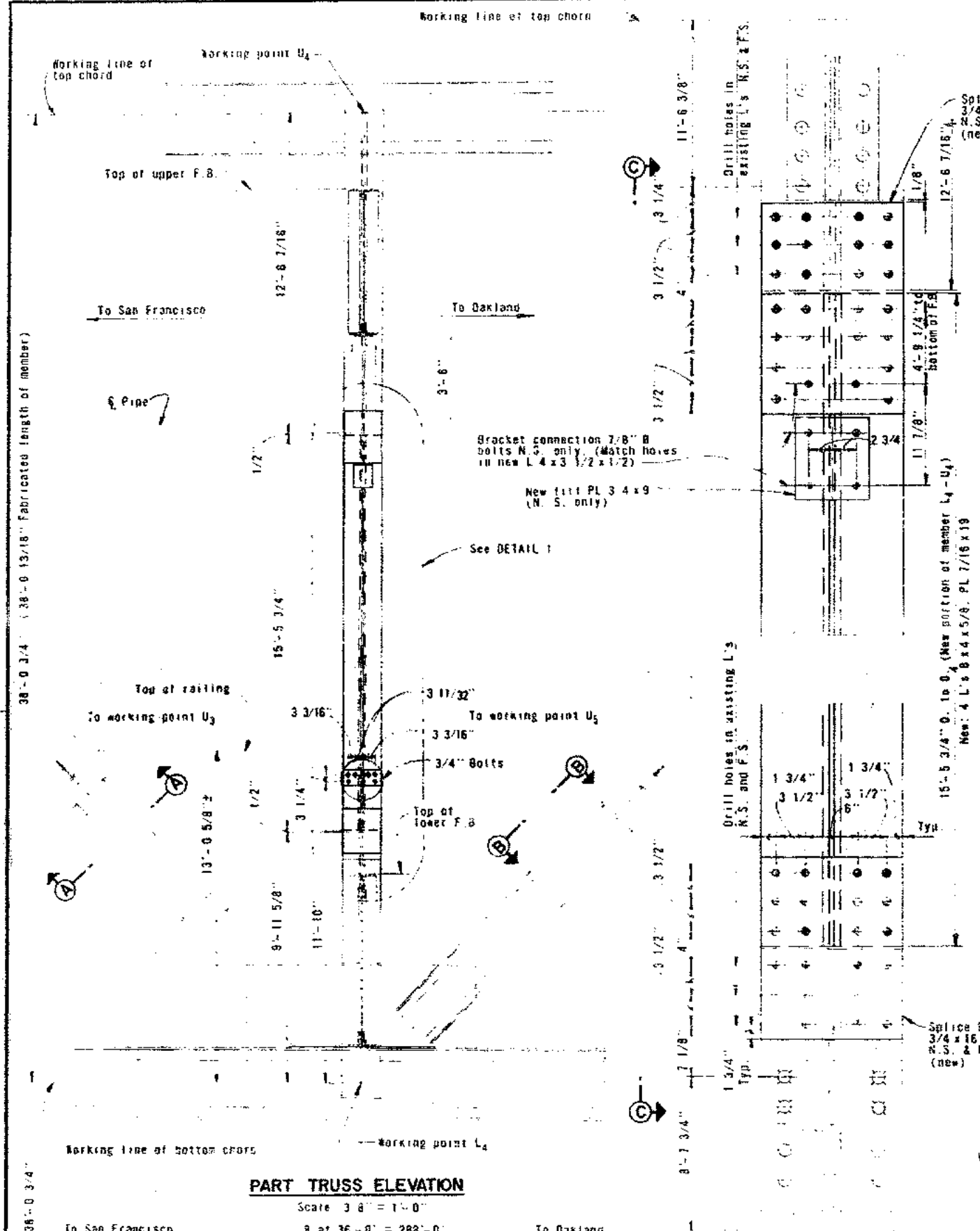
E10 - NORTH LOWER DECK
RAILING REPAIR
SF088 Sta. 238+00

W1 - NORTH UPPER DECK
RAILING REPAIR
SF088 Sta. 63+86

BEGINNING OF CONTRACT
P.M. 80 - S.F. - 6.1



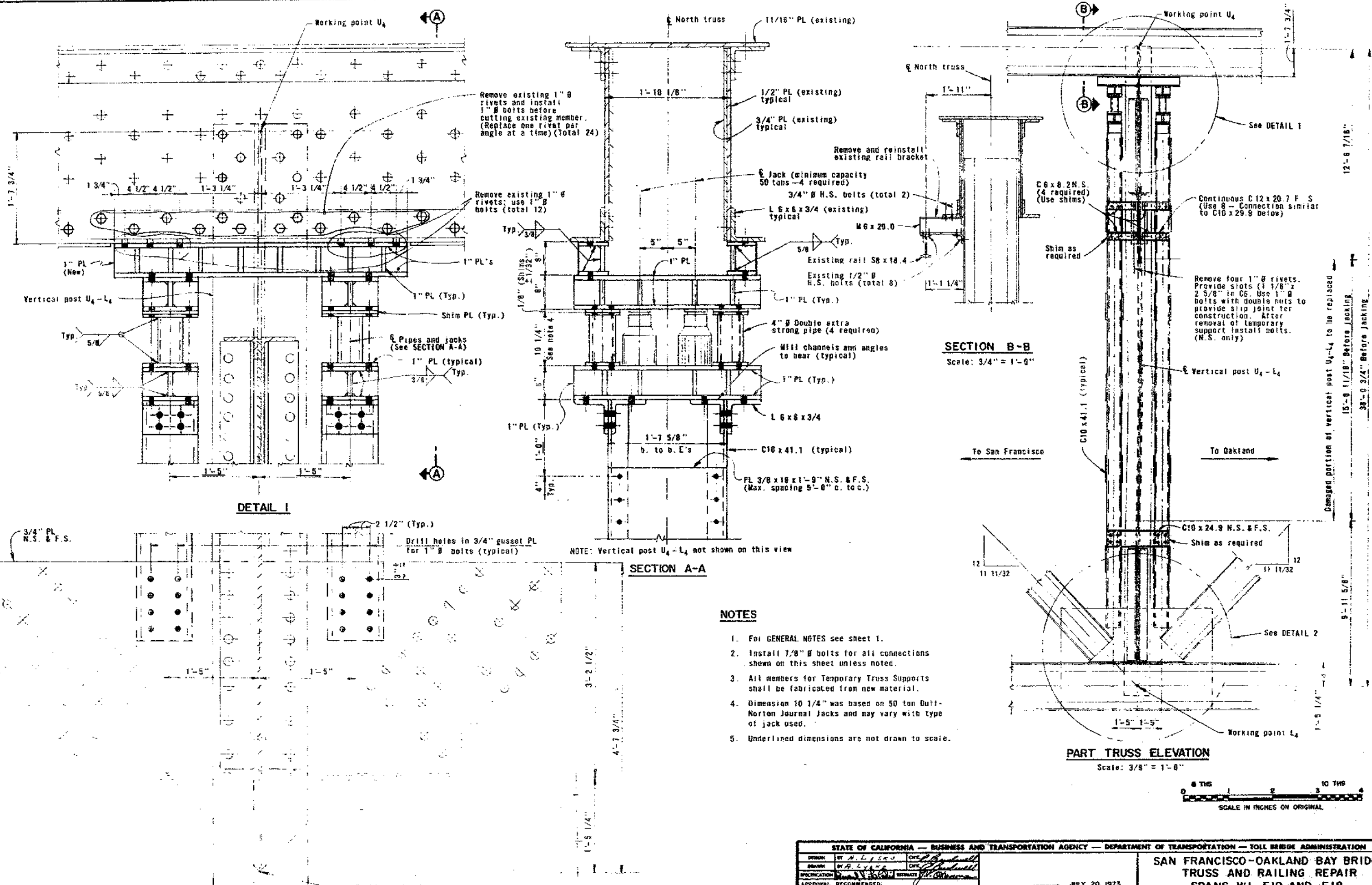
| | | | |
|--|----------|----------------------------|--|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN BY | APPROVED | APPROVED JULY 20, 1973 | |
| SPECIFICATIONS BY | REVIEWED | | |
| ESTIMATES BY | REVIEWED | | |
| PROJECT NAME | | PROJECT PLAN AND ELEVATION | |
| PROJECT NUMBER | | C-04139-1R | |



- NOTES**
- For GENERAL NOTES see sheet 1.
 - Install 1" B bolts for all connections shown on this sheet unless noted.
 - Existing bent leg of angle was cut out and new plate welded in place.



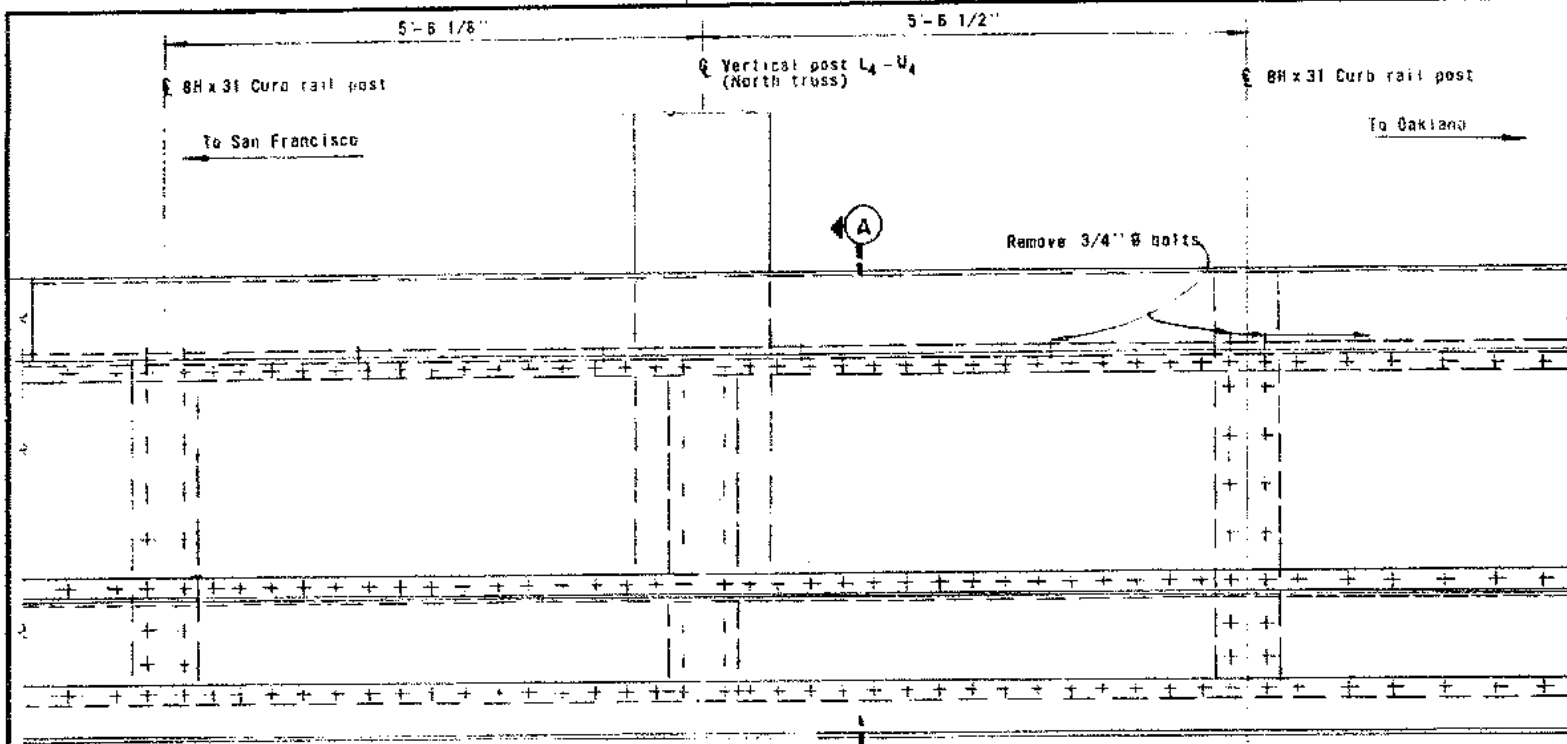
| | | | |
|--|-------------|-------------------------|------|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN BY | CHECKED BY | APPROVED BY | DATE |
| DRAWN BY | CHECKED BY | APPROVED BY | DATE |
| SPECIFICATION BY | CHECKED BY | APPROVED BY | DATE |
| APPROVAL RECOMMENDED | | | |
| S. Larsen | | Charles Sen | |
| APPROVED JULY 20, 1973 | | | |
| SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18 | | | |
| SPAN E18 - TRUSS DETAILS | | | |
| SCALE UNLESS NOTED 1/2" = 1'-0" | SHEET NO. 2 | DRAWING NO. C-04139-2 R | |



NOTES

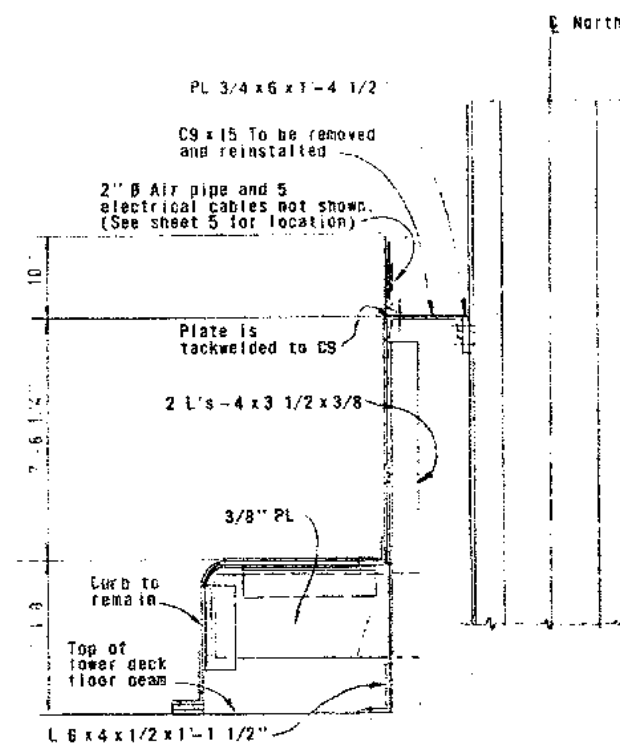
1. For GENERAL NOTES see sheet 1.
2. Install 7/8" g bolts for all connections shown on this sheet unless noted.
3. All members for Temporary Truss Supports shall be fabricated from new material.
4. Dimension 10 1/4" was based on 50 ton Duff-Norton Journal Jacks and may vary with type of jack used.
5. Underlined dimensions are not drawn to scale.

| | | | |
|--|--------------|-----------------------------------|---------------|
| STATE OF CALIFORNIA - BUSINESS AND TRANSPORTATION AGENCY - DEPARTMENT OF TRANSPORTATION - TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN | BY H. L. LEE | CHECKED | J. L. LEE |
| DRAWN | BY L. L. LEE | CHECKED | J. L. LEE |
| SPECIFICATION | BY L. L. LEE | CHECKED | J. L. LEE |
| APPROVAL | RECOMMENDED | APPROVED | JULY 20, 1973 |
| 1/1 9374 As built without revision. | | S. Larsen | |
| MARK | DATE | REVISION | BY |
| SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18 | | SPAN E18-TEMPORARY TRUSS SUPPORTS | |
| SCALE UNLESS NOTED 1 1/2" = 1'-0" | | SHEET NO. 3 | |
| DRAWN BY | | CHECKED BY | |

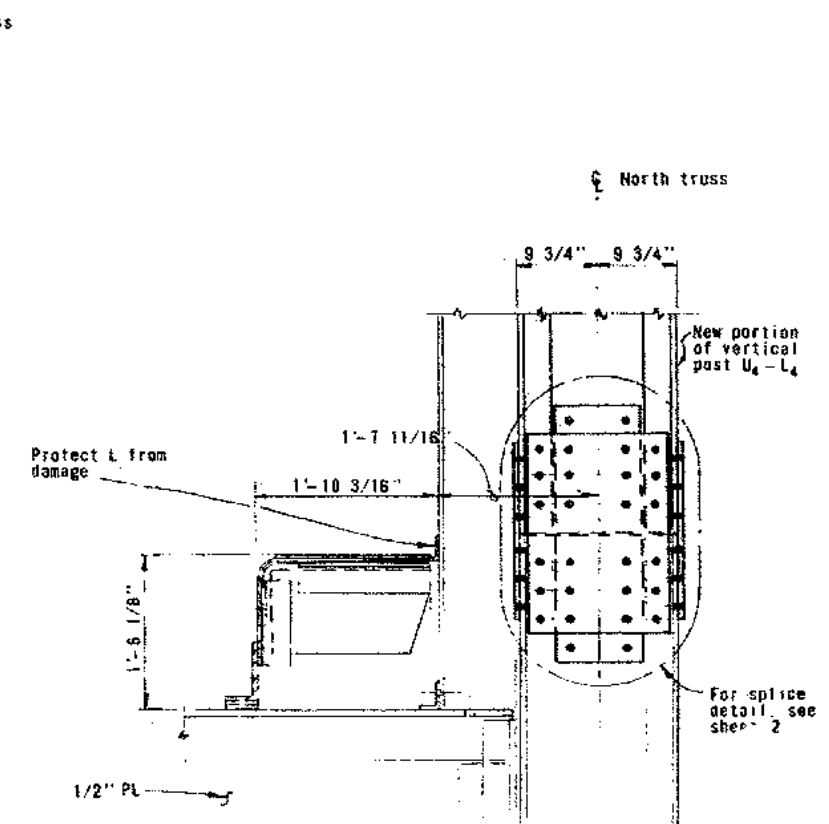


CURB AND RAILING - PARTIAL ELEVATION

Present condition at lower deck level



SECTION A-A



SECTION B-B

SECTION B-B shows the condition after installation of post

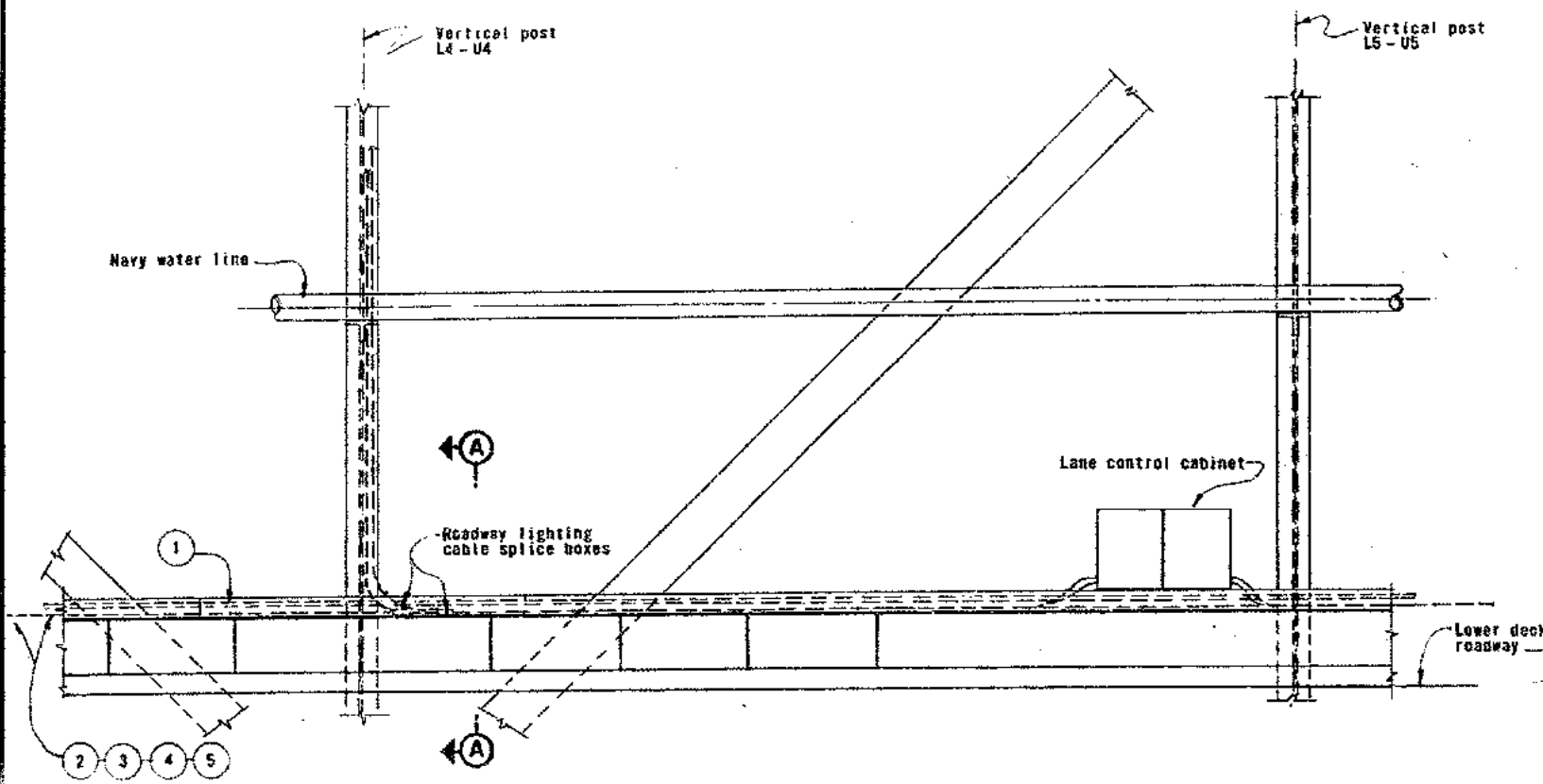
NOTES

1. For GENERAL NOTES see sheet 1.
2. The purpose of the work which was shown on this sheet was to provide temporary access to post U₄-L₄. This procedure was not followed, therefore the work was not performed.
3. For mechanical and electrical work see sheets 5 and 6.

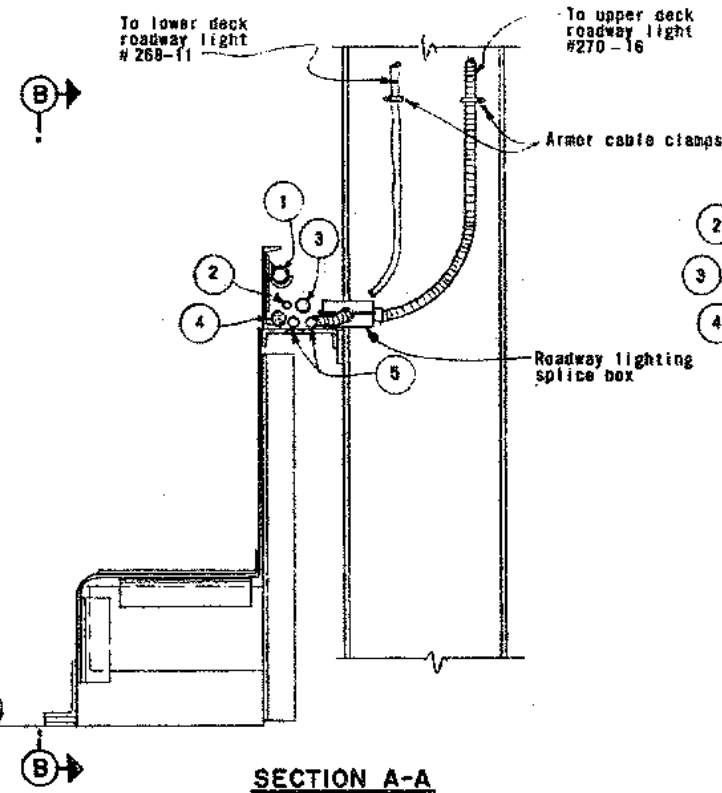


| | | | | | |
|-------------------------|----|------|----------|----|------|
| AS BUILT WITH REVISIONS | BY | DATE | REVISION | BY | DATE |
| | | | | | |

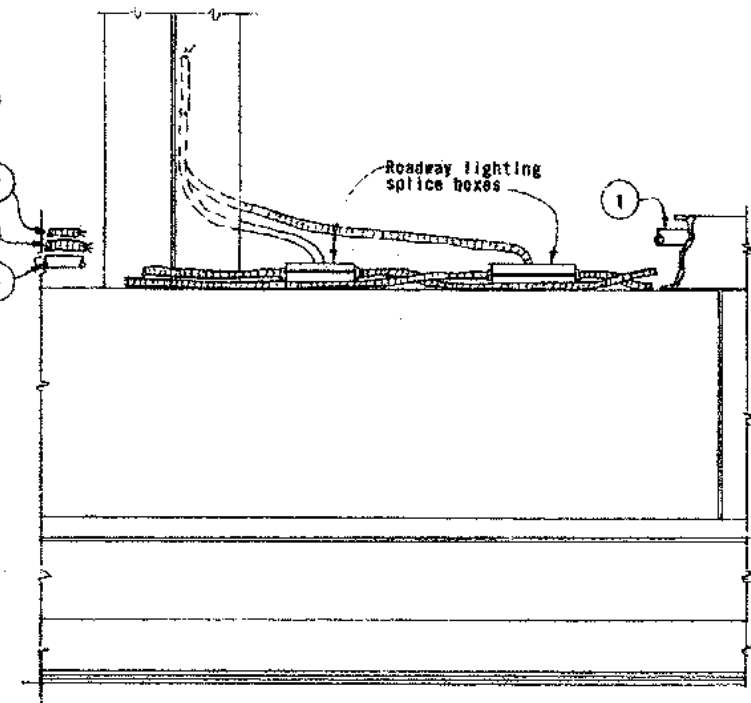
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|--|---------------------|--|--|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN BY A. L. V. L. | CHECKED BY J. H. H. | APPROVED JULY 20, 1973 S. L. L. ASSISTANT BRIDGE ENGINEER - REGISTERED ENGINEER, CIVIL | |
| DRAWN BY A. L. V. L. | CHECKED BY J. H. H. | | |
| REVISIONS | ESTIMATE | | |
| APPROVAL RECOMMENDED | | | |
| SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18 SPAN E18 - CURB AND RAILING DETAILS | | 1" = 1'-0" SHEET NO. 4 C-04139-45 | |



PARTIAL TRUSS ELEVATION
Present and Final Condition
(See note 2)



SECTION A-A



SECTION B-B

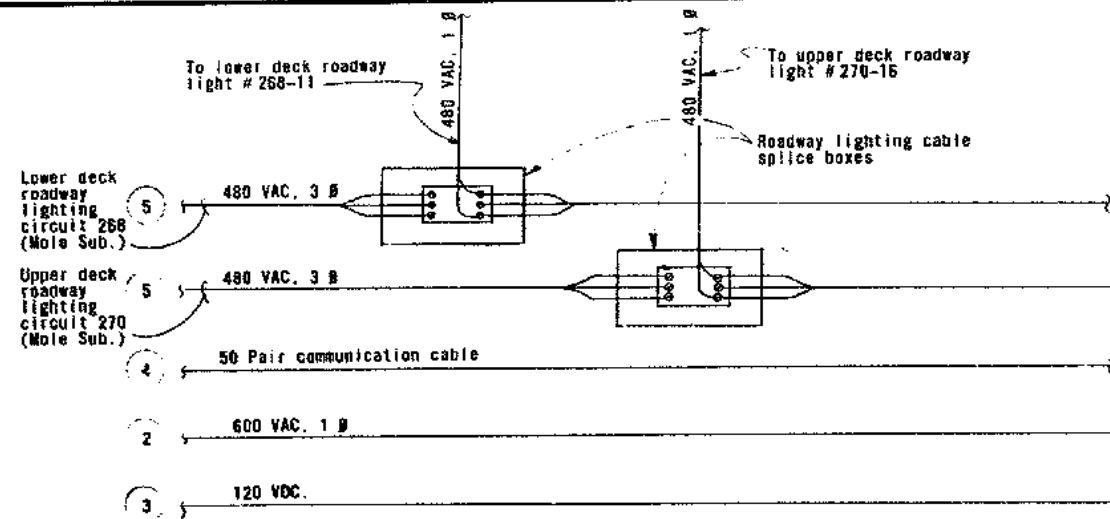
LEGEND (Sheets 5 and 6 only)

- ① 2" # Air line (existing)
- ② Armor Cable - Lane control cabinet (near U5) power 2 #10, 1 #, 800 VAC. (existing)
- ③ Armor Cable - Lane control cable 12 #10 TW, 13 #16 TW, 120 VDC
- ④ 50-Pair polyethylene jacketed communication cable (existing)
- ⑤ Armor Cable - Roadway lighting 3 #6 TW, 3 #, 480 VAC (existing)
- Install new wire, #6 TW or #10 TW.
- New splice. See sheet 6.
- ▶ Tape end of cable or wire with 2 layers of electrical vinyl plastic tape.

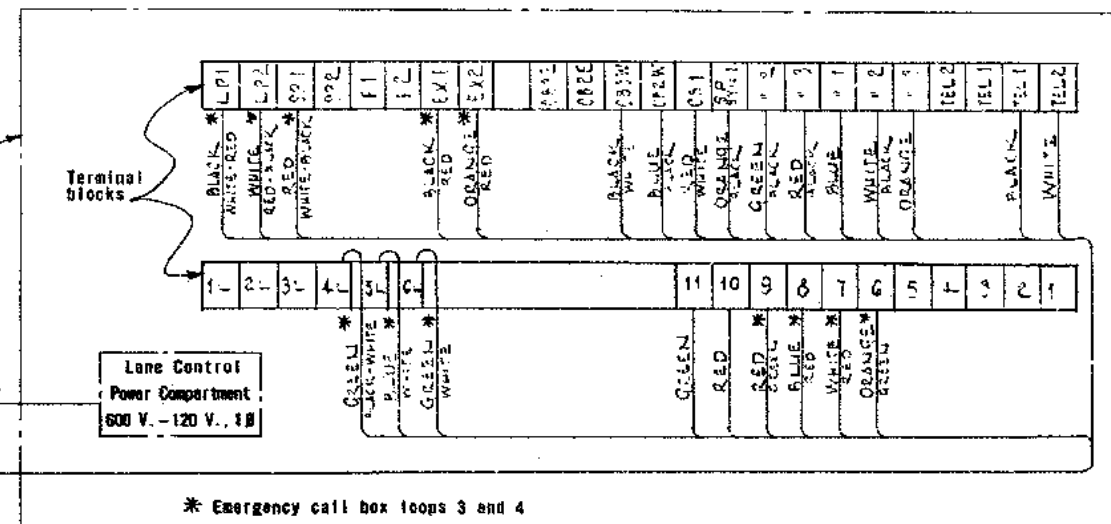


| MARK | DATE | REVISION | BY | CHECK |
|------|--------|--------------------------|-----|--------|
| 1 | 9-3-74 | As built with revisions. | G/C | F.A.R. |

| | | | |
|--|--------------------------------|--|--|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGNED BY: <i>[Signature]</i> | CHECKED BY: <i>[Signature]</i> | SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18 SPAN E18 - ELECTRICAL DETAILS I | |
| DRAWN BY: <i>[Signature]</i> | CHECKED BY: <i>[Signature]</i> | | |
| APPROVAL: <i>[Signature]</i> | APPROVED: JULY 20, 1973 | | |
| SCALE: NONE | VS. NO. 5 | REVISION NO. C-04139-S R | |

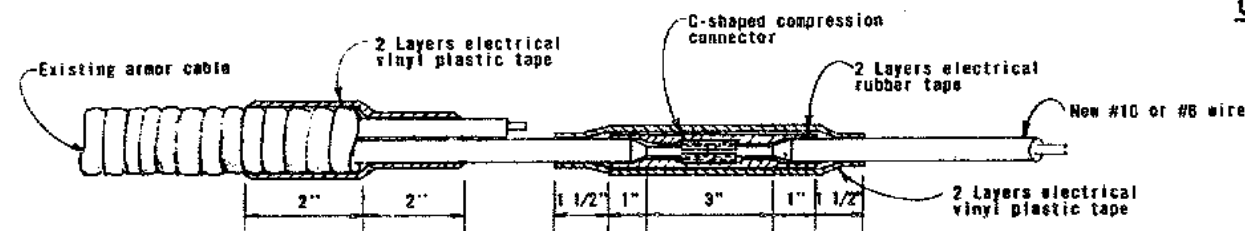


Lane control cabinet (near L5)

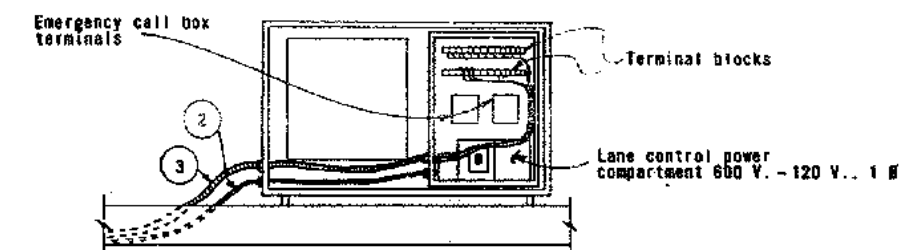


U4 AND U5 SCHEMATIC

Present and final condition



STRAIGHT SPLICE DETAIL



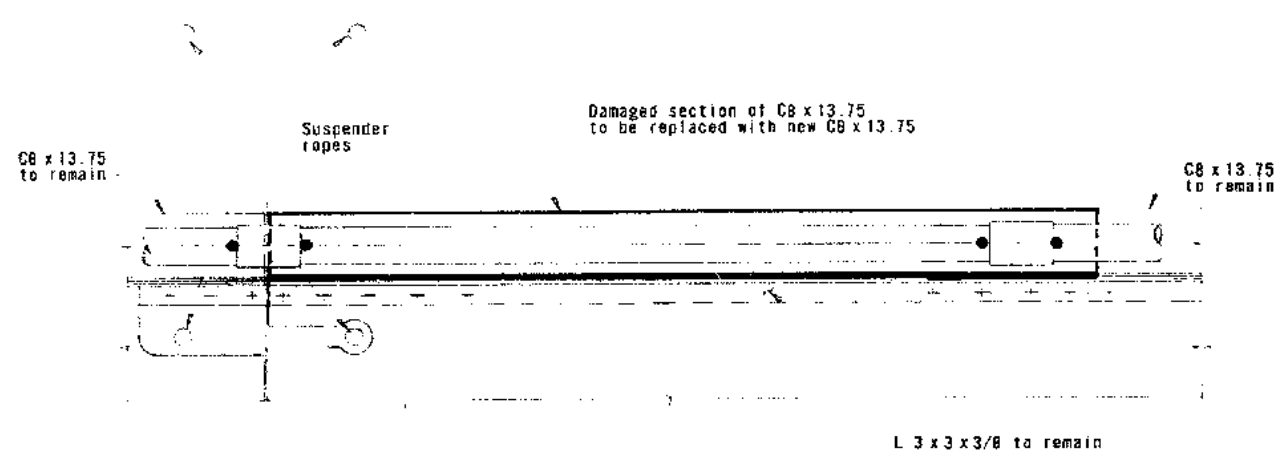
LANE CONTROL CABINET (NEAR L5)

No Scale

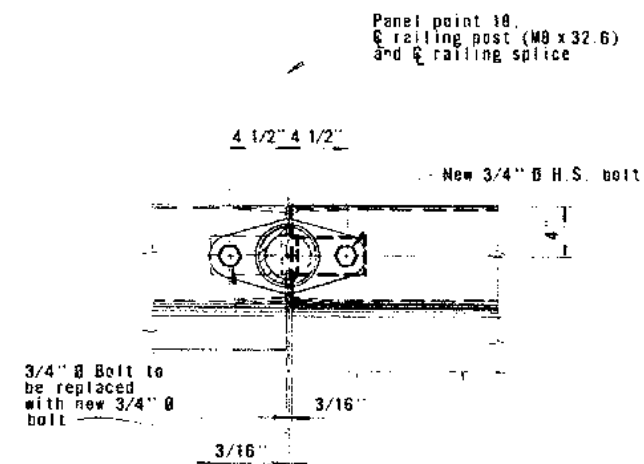


| MARK | DATE | REVISION | BY | CHK |
|------|-------|-------------------------|-----|-----|
| 1 | 05/74 | AS built with revisions | CIC | FAR |

| | | | |
|--|---|---|--|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGNER BY: <i>[Signature]</i> CHECKED: <i>[Signature]</i> | APPROVED BY: <i>[Signature]</i> CHECKED: <i>[Signature]</i> | APPROVED JULY 20, 1973 | |
| SPECIFICATION BY: <i>[Signature]</i> CHECKED: <i>[Signature]</i> | | APPROVAL RECOMMENDED: <i>[Signature]</i> | |
| <div style="display: flex; justify-content: space-between;"> <div> <p>SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18</p> <p>SPAN E18 - ELECTRICAL DETAILS II</p> </div> <div> <p>SCALE: NONE</p> <p>SHEET NO: 6</p> <p>DESIGNED BY: C-04139-6 R</p> </div> </div> | | | |

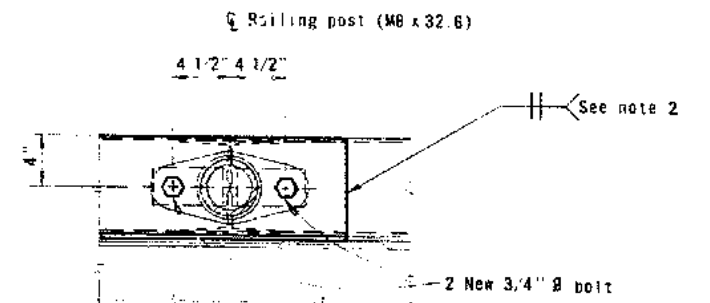


PLAN



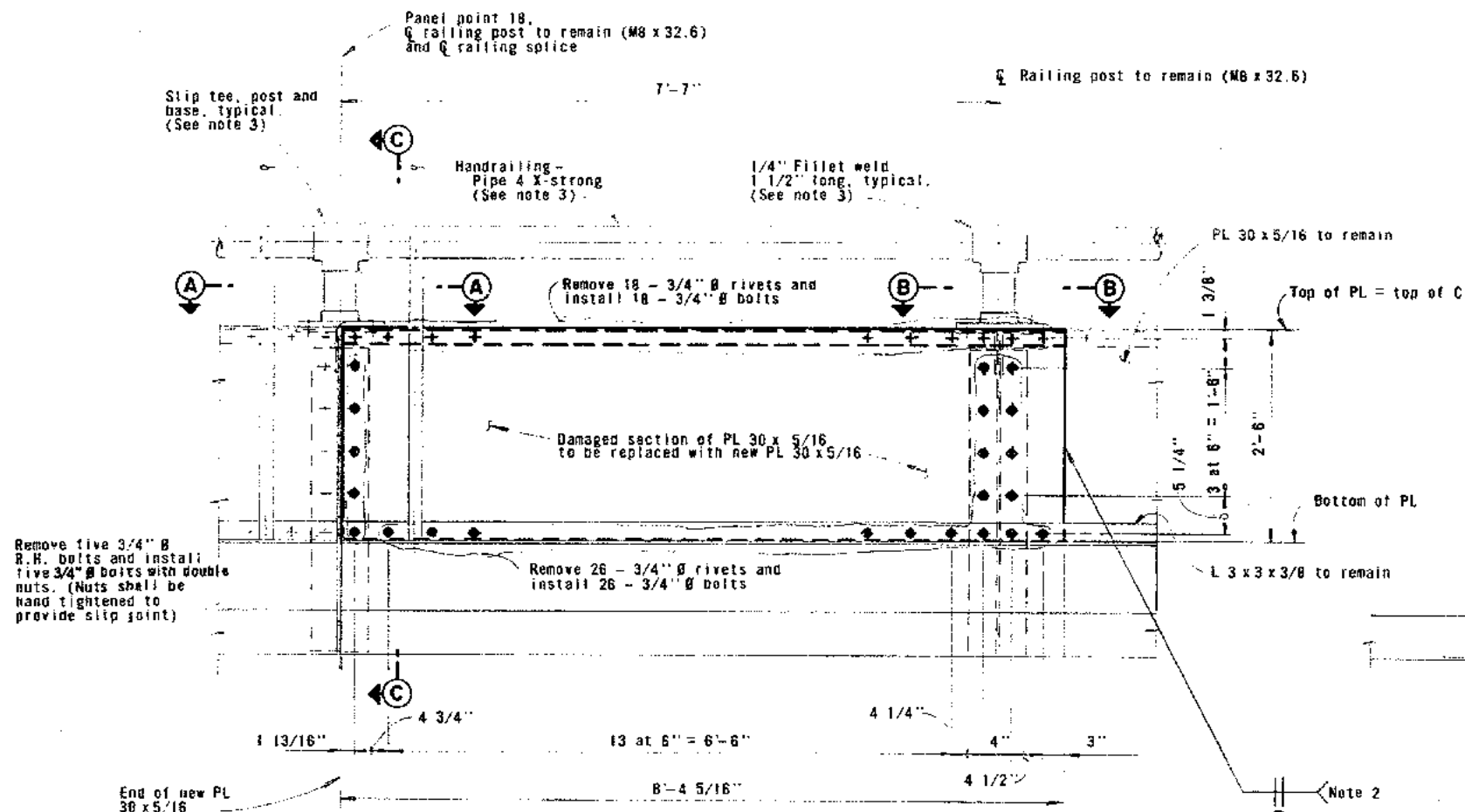
SECTION A-A

Scale: 1 1/2" = 1'-0"



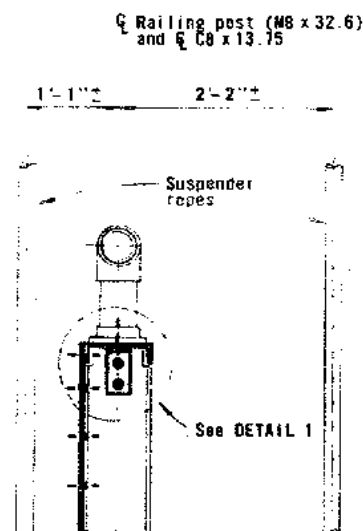
SECTION B-B

Scale: 1 1/2" = 1'-0"

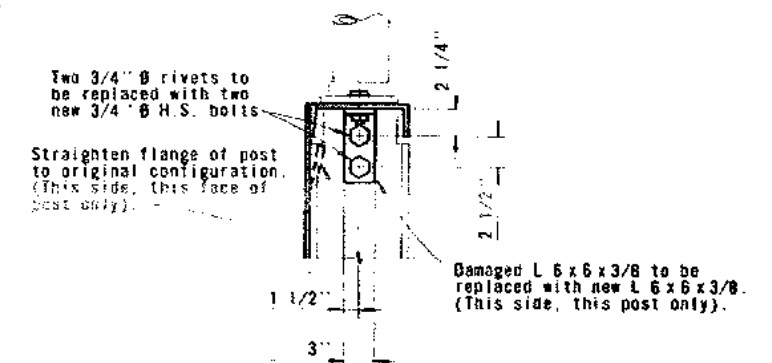


ELEVATION - NORTH UPPER DECK RAILING

(Looking North)



SECTION C-C



DETAIL 1

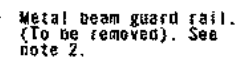
Scale: 1 1/2" = 1'-0"

NOTES

1. For GENERAL NOTES see sheet 1.
2. Cut existing PL 30 x 5/16 and C8 x 13.75 at this line. Remove damaged section as shown and replace with new section to restore railing to original configuration. Joint noted shall be butt welded and ground smooth. If outstanding leg of bottom L 3 x 3 x 3/8 is cut during operation, cut shall be butt welded and ground smooth.
3. Handrailing (Pipe 4 X-strong) shall be temporarily removed during construction by chipping 1/4" fillet welds at slip tees, unbolting handrailing post bases and sliding post away from damaged area. Original material shall be used for replacement except for new fillet welds and new bolts at post bases as shown in SECTION A-A and B-B.



| | | | |
|--|----------------------------|---|--|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN BY <i>Kerschman</i> | CHECK <i>Chapman</i> | SAN FRANCISCO - OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18 SPAN W1-RAILING REPAIR | |
| DRAWN BY <i>Kerschman</i> | CHECK <i>Chapman</i> | | |
| SPECIFICATION <i>W1-RAILING</i> | ESTIMATE <i>W1-RAILING</i> | | |
| APPROVAL RECOMMENDED: <i>S. Larsen</i> | | APPROVED: JULY 20, 1973 <i>Charles Sem</i> | |
| DATE: <i>7/20/73</i> | | SHEET NO. 7 | |



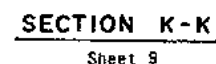
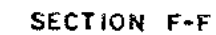
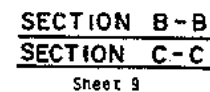
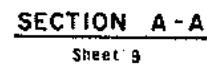
Technical drawing of a post and base assembly. The drawing shows a cross-section of a vertical post and a horizontal base. The post is labeled "Post and base: 4" x 4" steel "H" section". Dimensions are given: 10" for the total height, 7" for the upper section, 1'-4" for the middle section, and 1'-1" for the lower section. A base dimension of 8" is shown at the bottom left.

NOTES

1. For GENERAL NOTES see sheet 1.
2. Metal beam guard rail shall be removed and stored. Remove rail by chipping welds at post bases and at end of 1/2" plate. Weld areas remaining on curb and rail to remain, shall be ground smooth.



| | | | |
|--|------------------------|---|---|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN | BY <i>H. H. Hansen</i> | CHECKED <i>A. J. Smith</i> | <p align="center">SAN FRANCISCO - OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18</p> <hr/> <p align="center">SPAN E10 - RAILING REPAIR I</p> |
| DRAWN | BY <i>H. H. Hansen</i> | CHECKED <i>A. J. Smith</i> | |
| SPECIFICATION | BY <i>H. H. Hansen</i> | ESTIMATE <i>A. J. Smith</i> | |
| <p align="center">APPROVED JULY 20, 1973</p> <p><i>J. Larson</i></p> | | <p align="center"><i>James S. [Signature]</i></p> <p align="center">REGISTERED CIVIL ENGINEER - STATE OF CALIF. NO. 12345</p> | |
| <p align="center">SCALE: 1" = 1'-0"</p> | | <p align="center">SHEET NO. 8</p> | <p align="center">DRAWING NO. C-04139-B-R</p> |



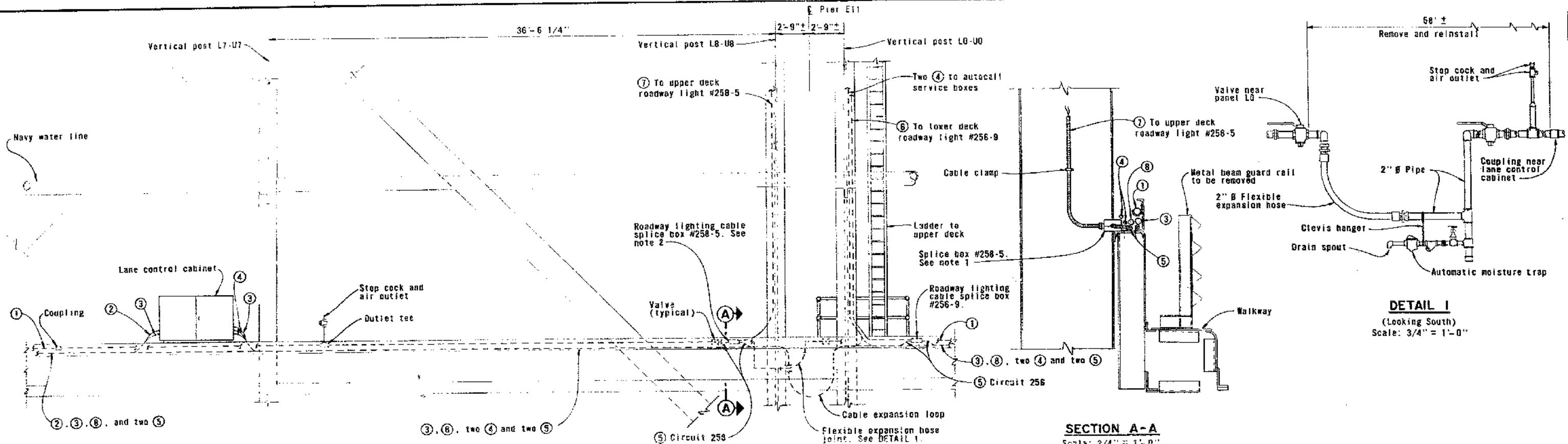
1. For GENERAL NOTES see sheet 1.
2. Damaged railing may be removed as a unit as implied in PLAN, ELEVATION and SECTIONS on sheets 9 and 10. All undamaged curb rail posts, angles and fill plates may be salvaged and reused.
3. Install 3/4" Ø bolts for all connections shown on sheets 9 and 10 unless noted. Install double nuts at all slotted holes. Nut shall be hand tightened to provide slip joint.
4. For mechanical and electrical work, see sheet 11.



- For SECTION K-K:
Two 13/16" Ø holes
For SECTION J-J:
Three 13/16" Ø holes

| | | | | |
|------|------|---------------------------|-----|------|
| 1 | 9374 | As built without revision | cfc | FAR |
| MARK | DATE | REVISION | BY | CHK. |

| | | | |
|--|------------------------|---|---|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN | BY <i>K. H. Hansen</i> | CHECKED <i>P. J. Smith</i> | <p align="center">SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18</p> <p align="center">SPAN E10-RAILING REPAIR III</p> |
| DRAWN | BY <i>K. H. Hansen</i> | CHECKED <i>P. J. Smith</i> | |
| SPECIFICATION | BY <i>K. H. Hansen</i> | ESTIMATE <i>P. J. Smith</i> | |
| APPROVAL | | RECOMMENDED: | <p align="center">APPROVED JULY 20, 1973</p> <p align="center"><i>K. H. Hansen</i></p> |
| <p align="center"><i>K. H. Hansen</i></p> | | <p align="center"><i>K. H. Hansen</i></p> | |
| <p align="center">C1772</p> | | <p align="center">SCALE UNLESS NOTED 1 1/2" = 1'-0"</p> | |
| <p align="center">ADMINISTRATIVE</p> | | <p align="center">SHEET NO. 10 DRAWING NO. G-04159-10F</p> | |



PARTIAL NORTH TRUSS ELEVATION

Present and final condition
(See note 3)
Scale: None

SECTION A-A

Scale: 3/4" = 1'-0"

LEGEND (This sheet only)

- ① 2" # Air line
 - ② Armor cable — Lane control cabinet power 2 #6, 1 #, 600 V.A.C.
 - ③ Armor cable — Lane control cable 12 #10 TW, 13 #16 TW, 120 V.D.C.
 - ④ Armor cable — Autocall series loop cable 3 #10 TW, 4 #19 TW, 120 V.D.C.
 - ⑤ Armor cable — Roadway lighting 3 #6 TW, 3 #, 480 V.A.C.
 - ⑥ Armor cable — Roadway lighting 2 #6 TW, 1 #, 480 V.A.C.
 - ⑦ PVC jacketed armor cable — Roadway lighting 2 #6 TW, 1 #, 480 V.A.C.
 - ⑧ 50 Pair polyethylene jacketed communication cable
- Install new #6 TW make-up wiring, length as required
- New splice. See sheet 6. (STRAIGHT SPLICE DETAIL)

NOTES

1. For GENERAL NOTES see sheet 1.
2. Roadway lighting circuit #258 originates from Pier E9 Substation.
3. Present and final conditions as shown are of the curb before damage and after repairs.



| MARK | DATE | REVISION | BY | CHK. |
|------|--------|-------------------------|-----|------|
| 1 | 5-3-74 | As built with revision. | c/c | CRB |

| | | | |
|--|--------------------------------|---|--|
| STATE OF CALIFORNIA — BUSINESS AND TRANSPORTATION AGENCY — DEPARTMENT OF TRANSPORTATION — TOLL BRIDGE ADMINISTRATION | | | |
| DESIGN BY <i>[Signature]</i> | CHK. <i>[Signature]</i> | APPROVED JULY 20, 1973 <i>[Signature]</i> ASSISTANT COUNTY CHIEF — REGISTERED ENGINEER, 00030 | |
| DRAWN BY <i>[Signature]</i> | CHK. <i>[Signature]</i> | | |
| SPECIFICATION BY <i>[Signature]</i> | ESTIMATE BY <i>[Signature]</i> | | |
| APPROVAL RECOMMENDED: <i>[Signature]</i> | | | |
| SAN FRANCISCO-OAKLAND BAY BRIDGE TRUSS AND RAILING REPAIR SPANS W1, E10 AND E18 SPAN E10 — ELECTRICAL DETAILS | | SCALE: AS SHOWN SHEET NO. 11 DRAWING NO. C-04139-11R | |